



Michael O. Leavitt
Governor

State of Utah
Department of Transportation

John R. Njord, P.E.
Executive Director

February 26, 2003

TO ALL BIDDERS CONCERNED:

SUBJECT: STP-0108(7)3
Syracuse Road; Main Street to 1000 W, Clearfield
Addendum No. 1

To Whom It May Concern:

We are submitting the following changes to the subject project.

1. The "Table of Contents" has been revised.
2. The "Measurement and Payment" has been revised.
Item 023160020 Roadway Excavation on page 5 of 16 has been revised.
3. Standard Specification **02969 Optional Use of Reclaimed Asphalt Pavement** has been deleted.
4. Special Provision **00725 M Scope of Work** has been revised.
5. Special Provision **00727 M Control of Work** has been revised.
6. Special Provision **02741 M Hot Mix Asphalt (HMA)** has been added.
7. Special Provision **02969 S Optional Use of Reclaimed Asphalt Pavement** has been added.
8. Plan Sheet DU-1 has been revised.

Please consider these revisions before submitting your bid.

Sincerely,

Sincerely,

Bruce Swenson
UDOT Project Manager

Pete Negus
Deputy Construction Engineer

Enclosure



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2002 - U.S. Standard Units (Inch-Pound Units)
Table of Contents
STP-0108(7)3

U		Item
		Use of Minority or Women Owned Banks
		Bid Conditions Disadvantaged Business Enterprise
		Notice to Contractors
		Bidding Schedule
		Measurement and Payment
		Wage Rates Applicable/Wage Rates Non-Applicable

Related Sections Not Included in Project

In some cases the related sections within a specification may not be included because that section may not be applicable to a particular project. The below table outlines Sections of the specifications that have Related Sections that are not included and a brief description why not included.

sections apply to a project indicate "None" in the "Section" column.

Section		Related Sections Not Included		Reason Not Included
1571		2373, 2613		No riprap or end sections
2056		2332		No bridge
2316		2075		No geotextiles
2912		2932		No plants
2961		2968		PG Grade Project
3310		2752, 5832		No PCCP or bridge
5120		9972		No painting of steel

Standard Specifications:

U	Date	Sheet No.			Section #	Title
	08/29/02	1			* N/A	Listing of Revised Standard Specifications
	07/03/02	2	to	13	* 00120	Instructions to Bidders

(*)This Specification is needed on **ALL** jobs.

Standard Specifications:						
U	Date	Sheet No.			Section #	Title
	07/03/02	14	to	17	* 00515	Award and Execution of Contracts
	07/03/02	18	to	34	* 00555	Prosecution and Progress
	08/29/02	35	to	45	* 00570	Definitions
	07/03/02	46	to	59	* 00725	Scope of Work
	08/29/02	60	to	72	* 00727	Control of Work
	07/03/02	73	to	82	* 00820	Legal Relations and Responsibility to Public
	07/03/02	83	to	89	* 01280	Measurement
	07/03/02	90	to	103	* 01282	Payment
	07/03/02	104			* 01285	Mobilization
	08/29/02	105	to	109	01315	Public Information Services
	07/03/02	110	to	115	* 01355	Environmental Protection
	07/03/02	116	to	125	01452	Profilograph and Smoothness
	07/03/02	126	to	133	* 01455	Materials Quality Requirements
	07/03/02	134	to	145	* 01554	Traffic Control
	07/03/02	146	to	149	01558	Temporary Pavement Markings
	07/03/02	150	to	154	01571	Temporary Environmental Controls
	07/03/02	155	to	156	01572	Dust Control and Watering
	07/03/02	157	to	167	01721	Survey
	07/03/02	168	to	169	01741	Final Cleanup
	07/03/02	170	to	171	01891	Move Street Signs and Mail Box Assemblies
	07/03/02	172	to	173	01892	Reconstruct Catch Basin, Cleanout, Meter, Valve, Manhole, and Monument Boxes
	07/03/02	174	to	177	02056	Common Fill
	07/03/02	178	to	180	02061	Select Aggregate
	07/03/02	181	to	183	02082	Water Meter
	07/03/02	184	to	189	02221	Remove Structure and Obstruction
	07/03/02	200	to	201	02222	Site Demolition - Pavement
	07/03/02	202	to	204	02231	Site Clearing and Grubbing
	07/03/02	205	to	208	02316	Roadway Excavation

(*)This Specification is needed on **ALL** jobs.

Standard Specifications:						
U	Date	Sheet No.			Section #	Title
	07/03/02	209	to	211	02317	Structural Excavation
	07/03/02	212	to	213	02324	Compaction
	07/03/02	214	to	216	02330	Embankment
	07/03/02	217	to	229	02610	Pipe Culverts
	07/03/02	230	to	231	02611	Diversion Box Gate and Frame
	07/03/02	232	to	233	02635	Grates, Solid Covers, Frames, and Manhole Steps
	07/03/02	234			02705	Pavement Sawing
	08/29/02	235	to	241	02721	Untreated Base Course (UTBC)
	08/29/02	242	to	269	02741	Hot Mix Asphalt (HMA)
	07/03/02	270	to	285	02745	Asphalt Material
	07/03/02	286	to	288	02746	Hydrated Lime
	07/03/02	289	to	291	02748	Prime Coat/Tack Coat
	07/03/02	292			02749	Asphalt Driveway
	07/03/02	293	to	297	02765	Pavement Marking Paint
	07/03/02	298	to	302	02768	Pavement Marking Materials
	07/03/02	303	to	306	02771	Curbs, Gutters, Driveways, Pedestrian Access Ramps, and Plowable End Sections
	07/03/02	307	to	309	02776	Concrete Sidewalk, Median Filler, and Flatwork
	07/03/02	310	to	320	02786	Open-Graded Surface Course (OGSC)
	08/29/02	321	to	324	02821	Chain Link Fencing and Gates
	07/03/02	325	to	331	02841	Traffic Barriers
	07/03/02	332	to	334	02842	Delineators
	07/03/02	335	to	339	02891	Traffic Signs
	08/29/02	340	to	357	02892	Traffic Signal
	07/03/02	358	to	360	02896	Boundary Survey
	07/03/02	361	to	363	02911	Mulch
	07/03/02	364	to	368	02912	Topsoil
	07/03/02	369	to	375	02922	Seed, Turf Seed, and Turf Sod

(*)This Specification is needed on **ALL** jobs.

Standard Specifications:						
U	Date	Sheet No.			Section #	Title
	07/03/02	376	to	377	02961	Rotomilling
		378	to	380		**Blank Sheet**
	07/03/02	381	to	394	03055	Portland Cement Concrete
	08/29/02	395	to	403	03152	Concrete Joint Control
	07/03/02	404	to	413	03211	Reinforcing Steel and Welded Wire
	07/03/02	414	to	430	03310	Structural Concrete
	07/03/02	431	to	437	03390	Concrete Curing
	07/03/02	438	to	440	03392	Penetrating Concrete Sealer
	07/03/02	441	to	442	03575	Flowable Fill
	08/29/02	443	to	451	05120	Structural Steel
	07/03/02	452	to	453	06055	Timber and Timber Treatment
	07/03/02	454	to	460	13551	General ATMS Requirements
	07/03/02	461	to	468	13553	ATMS Conduit
	07/03/02	469	to	475	13554	Polymer Concrete Junction Box
	07/03/02	476	to	482	13555	ATMS Cabinet
	07/03/02	483	to	507	13594	Fiber Optic Communication
	07/03/02	508	to	511	16135	Electrical Junction Boxes

Special Provisions:					
U	Sheet No.			Section	Item
	512			00250 S	Pre-bid Conference
	513	to	514	00555 M	Prosecution and Progress
	515			00725 M	Scope of Work
	516	to	517	00727 M	Control of Work
	518			01280 M	Measurement
	519	to	521	01284 S	Prompt Payment
	522	to	523	01286 S	Potholing
	524			01315 M	Public Information Services

(*)This Specification is needed on **ALL** jobs.

Special Provisions:					
U	Sheet No.			Section	Item
	525			01554 M	Traffic Control
	526	to	527	01721 M	Survey
	528			02056 M	Common Fill
	529	to	541	02079 S	Water System Requirements
	542	to	543	02221 M	Remove Structure and Obstruction
	544	to	546	02610 M	Pipe Culverts
	547			02611 M	Diversion Box Gate and Frame
	547A	to	547F	02741 M	Hot Mix Asphalt (HMA)
	548			02742 S	Project Specific Surfacing Requirements
	549	to	553	02765 S	Pavement Marking Paint
	554	to	555	02776 M	Concrete Sidewalk, Median Filler, and Flatwork
	556			02821 M	Chain Link Fencing and Gates
	557	to	567	02892 M	Traffic Signal
	567A	to	567D	02969 S	Optional Use of Reclaimed Asphalt Pavement
	568	to	569	03310 M	Structural Concrete
	570			13553 M	ATMS Conduit
					1. Attention Contractors
					2. Specific Equal Employment Opportunity Responsibilities
					3. Required Contract Provisions, Federal-Aid Construction Contracts (PR-1273)

U	Sheet No.			PDBS Project Summary Report
	1	to	4	PDBS Project Summary of Items
	1	to	43	PDBS Detailed Stationing Summaries Report

Follow the requirements of the Current Materials Minimum Sampling and

(*)This Specification is needed on **ALL** jobs.

Testing Manual:

Materials Minimum Sampling and Testing Manual reference can be found from the UDOT Web Site at:

<http://www.dot.utah.gov/esd/Manuals/Materials/MaterialsSampling.htm>

**For UDOT employees the Manual can also be found on the Shared Drive at:
\\Shared\\Engineering Services\\Manuals\\Materials (W drive for the Complex
and R drive for the Regions)**

(*)This Specification is needed on **ALL** jobs.

36	02222001P	Remove Concrete Gutter	Feet
37	022220020	Remove Concrete Curb and Gutter	Feet
38	02222004P	Remove Asphalt Pavement	Square yard
<p>Regardless of the depth or number of courses encountered.</p> <p>A. Department will pay for material placed to cover pavements or fill depressions under "Roadway Excavation," or "Borrow."</p> <p>B. Department will pay for concrete curb and concrete curb and gutter integral to the concrete pavement to be removed under "Remove Concrete Pavement."</p>			
Includes removing asphalt in parking areas and all saw cutting to match existing.			
39	022310010	Clearing and Grubbing	Lump sum
40	023160020	Roadway Excavation (Plan Quantity)	Cubic yard
41	02610001*	4 inch Sewer Lateral	Feet
<p>Measured parallel to the center line from barrel end to barrel end, in place.</p> <p>Includes excavation, bedding, backfill, and connection to sewer manholes and existing lateral.</p>			
42	02610002*	8 inch Sewer Lateral	Feet
<p>Measured parallel to the center line from barrel end to barrel end, in place.</p> <p>Includes excavation, bedding, backfill, and connection to sewer manholes and plugging ends.</p>			
43	026100030	12 inch Pipe Culvert, Class C	Feet
<p>Measured parallel to the center line from barrel end to barrel end, in place.</p> <p>Includes excavation, bedding, backfill, and any temporary irrigation facilities to serve the water users.</p>			
44	02610032P	18 inch Pipe Culvert, Class C	Feet
<p>Measured parallel to the center line from barrel end to barrel end, in place.</p> <p>Includes repairing existing improvements and vegetation damaged by trenching operations for the irrigation line. Includes excavation, bedding, backfill, and any temporary irrigation facilities to serve the water users.</p>			
45	02610034P	24 inch Pipe Culvert, Class C	Feet
<p>Measured parallel to the center line from barrel end to barrel end, in place.</p> <p>Includes repairing existing improvements and vegetation damaged by trenching operations for the irrigation line. Includes excavation, bedding, backfill, and any temporary irrigation facilities to serve the water users.</p>			

Standard Specification

SECTION 02969

OPTIONAL USE OF RECLAIMED ASPHALT PAVEMENT

has been deleted.

BLANK SHEET

Replaces Sheets 378 thru 380

**SPECIAL PROVISION
STP-0108(7)3**

SECTION 00725 M

SCOPE OF WORK

Add the following to Subsection **1.2 INTENT OF CONTRACT**:

- B. This project generally involves the following:
1. Widening of SR-108 between Main Street and 1000 West in Clearfield and Syracuse to four lanes with a center left turn lane and continuous 12' wide shoulders. Realignment of the 300 West approach.
 2. Sidewalk, curb and gutter, stamped concrete flatwork, driveways, and pedestrian access ramps.
 3. Construction of drainage, irrigation, and water system features.
 4. Traffic signal construction at the intersection of SR-108 and 300 West and upgrades at the Main Street and 1000 West intersections.
 5. Traffic signing and striping.
 6. Fiber optic signal interconnect system.
 7. Landscaping.
- C. **This project must be completed within 100 working days.** |

**SPECIAL PROVISION
STP-0108(7)3**

SECTION 00727 M

CONTROL OF WORK

Add the following to Subsection **1.7 COOPERATION WITH UTILITIES**:

- H. Questar Gas Company, Utah Power, Qwest Communications, and AT & T Broadband are required to complete extensive facility relocations as part of this project. Some relocation activities may begin prior to construction, but be advised that major utility relocation activities will continue to be in progress during construction of the project. As well, coordination with the West Branch Irrigation company, Clearfield City, and Syracuse City is required for work done on their facilities.
1. Attend a Preconstruction Meeting with the Utility Companies to coordinate plans and schedules.
 2. Adjust sequencing of operations to accommodate the utility relocations.
 3. Survey and stake control lines to facilitate utility relocations as per Section 01721, subsection 3.15.
 4. Coordinate all construction activities affecting utility work with the utility contact persons listed in the table below.

Project No. STP-0108(7)3 SR-108, Syracuse Road, Main St. to 1000West Utility Contact List			
Company	Representative	Address	Telephone No.
Utah Power and Light Co.	Mr. Jerry Isaacson	1407 West North Temple Suite 330 SLC, Utah 84140	(801) 220-2421 FAX (801) 220-3066 Cell (801) 540-2008
	Gardell Grundvig	1438 West 2550 South Ogden, Utah 84401	(801) 629-4385 FAX (801) 629-4379
Questar Gas Company	Mr. Kyle Secretan Project Coordinator	1140 West 200 South P.O. Box 45360 SLC, Utah 84145	(801) 342-3389 FAX (801) 324-3345 KyleS@questar.com
Qwest Corporation	Mr. Jeff Stapley CP Field Engineer	1425 West 3100 South Salt Lake City, Utah 84119	(801) 974-8505 FAX (801) 974-8160 jxstapl@qwest.com

Project No. STP-0108(7)3 SR-108, Syracuse Road, Main St. to 1000West Utility Contact List			
Clearfield City	Scott Hodge Public Works Director	55 South State Street Clearfield, UT 84015	(801) 525-2700 FAX (801) 525-2869 shodge@clearfieldcity.org
North Davis County Sewer District	Kevin Cowan, District Manager	P.O. Box 704 Layton, UT 84041	(801) 825-0712 FAX (801) 773-6320
West Branch Irrigation Co.	Lavell Sackett, President	3384 South 1000 West Syracuse, UT 84075	(801) 825-4302 yankee@inovion.com
	Lanny Holbrook		(801) 825-7311
Comcast (Formerly AT&T Broadband and Internet Services)	Sheryl Pehrson	9075 South 700 West Sandy, UT 84070	(801) 401-3023 Cell (801) 255-2711 Cell (801) 652-5374 Sheryl_Pehrson@cable.comcast.com
	Lyndon Lauhingo		(801) 401-3048 FAX (801) 255-2711 Lyndon_Lauhingo@cable.comcast.com
Syracuse City	Michael Moyes, City Administrator	1787 South 2000 West Syracuse, UT 84075	(801) 825-1477 FAX (801) 825-3001 mike@syracuseut.com

1. This project involves several utility lines that will remain in place during construction. These utilities to remain are shown on sheet TS-6. The depths of these given in the plans are only estimated. It is possible that some of these utility lines may be within 1 foot of the subgrade elevation. The Contractor is responsible for protecting these utilities in place during construction. The Contractor will repair at his own expense and to the approval of the utility owner any damages to these utilities resulting from construction activities.

- J. To protect the utility lines to remain in place during construction, the Contractor shall at a minimum take the following precautionary measures:
 1. Locate each line prior to construction in the vicinity of the line. This may involve potholing, subsurface survey, or laborers with shovels.
 2. Maintain adequate cover over the line to protect the line from construction equipment.
 3. Adjust compaction methods if needed and as approved by the Engineer to avoid damaging the line.

SPECIAL PROVISION
STP-0108(7)3

SECTION 02741M

HOT MIX ASPHALT (HMA)

Add the following to Article 1.4, Paragraph C:

7. Use Table 4 with n=10 to determine Percent Within Limits for density.

Delete Table 3 and replace with the following:

Table 3 Upper and Lower Limit Determination	
Parameter	UL and LL
3/4 inch sieve for 1 inch HMA 1/2 inch sieve for 3/4 inch HMA 3/8 inch sieve for 1/2 inch HMA No. 4 sieve for 3/8 inch HMA	Target Value \pm 6.0%
No. 8 sieve	Target Value \pm 5.0%
No. 50 sieve	Target Value \pm 3.0%
No. 200 sieve	Target Value \pm 2.0%
Asphalt Binder Content	Target Value \pm 0.35%
VMA Production Range	Target Value \pm 1.25%
Target Range (Field)	12.5% - 13.5% for 1 inch 13.5% - 14.5% for 3/4 inch 14.5% - 15.5% for 1/2 inch 15.5% - 16.5% for 3/8 inch
Target Range (Design)	Modified as necessary to meet Field Target Range
Density	Lower Limit: Target Value - 2.0% Upper Limit: Target Value + 3.0%

Delete Article 2.4, Paragraph A and replace with the following:

- A. Comply with all requirements for Superpave Volumetric Mix Design according to Asphalt Institute, SP-1, and SP-2, AASHTO PP 28 and the following:
1. Meet requirements of Table 8 and Table 9
 2. Use a laboratory qualified by UDOT Central Materials in the use of the Superpave Gyratory Compactor. AASHTO T 312.
 3. Use a FHWA-protocol approved Superpave Gyratory Compactor.
 4. Meet all volumetric mix design requirements for the selected target gradation.

Delete Article 2.4, Paragraph C and replace with the following:

- C. Moisture Susceptibility
1. Incorporate hydrated lime into all volumetric designs. Use 1 percent, minimum, for Method A and 1½ percent, minimum, for Method B (Section 02746 - Hydrated Lime).

Delete Table 8 and replace with the following:

Table 8				
Volumetric Design Gyrations				
20 Years Design ESALS (Million)	Compaction Parameters			Voids Filled with Asphalt (VFA) (%)
	N_{initial} /% of G_{mm} *	N_{design} /% of G_{mm} *	N_{max} /% of G_{mm} *	
0.3	6/# 91.5	50/\$96.5	75/ # 98.2	70 - 80 **
0.3 to <3	7/# 90.5	75/\$96.5	115/ # 98.2	65 - 78
3 to < 30	8/# 89.0	100/\$96.5	160/ # 98.2	65 - 75
\$30	9/ # 89.0	125/\$96.5	205/ # 98.2	65 - 75

* G_{mm}: Maximum specific gravity of Mix. (Rice Method)

** 67 percent specified lower limit VFA for 1 inch nominal maximum size mixture.

Delete Table 9 and replace with the following:

Table 9 Volumetric Design Requirements	
HMA design mixing and compaction temperatures	Provided by the Engineer
Dust Proportion Range	0.6 - 1.40
Voids in Mineral Aggregate (VMA) at N_{design} AASHTO PP 28.9.2, using G_{sb} at SSD. Equation based on percent of total mix.	Sufficient to Achieve Field Performance (Submit calculations or documentation to substantiate)
Hamburg Wheel Tracker UDOT Materials Manual of Instruction Part 8-990	Maximum 10 mm impression at 20,000 cycles

Delete Article 2.5 and replace with the following:

2.5 CONTRACTOR INITIATED CHANGES IN MIX DESIGN

- A. Submit all requests in writing at least 12 hours prior to incorporating changes into production.
- B. Submit a field volumetric mix design for all target changes.
 - 1. Field volumetric mix design verification consists of 3 sets of 2 gyratory specimens run at the new targets. The Department's acceptance tests are allowed for field verification.
 - 2. If the field volumetric mix design meets the volumetric requirements, the Engineer, in consultation with the Region Materials Engineer, provides written approval of the verified field volumetric mix design.
 - 3. If the field volumetric mix design does not meet the volumetric requirements, submit a new laboratory volumetric mix design from a laboratory qualified by UDOT Central Materials. Allow at least 4 working days for verification.
 - 4. The Department performs up to two volumetric mix design verifications at no cost to the Contractor. The Department charges \$3000 for each additional laboratory and/or field verification required, including all laboratory or field volumetric mix design verifications required due to contractor initiated target changes.
- C. Submit a new laboratory volumetric mix design if changes occur in the aggregate source, asphalt binder source or grade.
- D. Do not make changes to production mix until request is reviewed and verified.

Delete Article 3.9 and replace with the following:

3.9 DISPUTE RESOLUTION

- A. When disputing the validity of the Department's acceptance tests, submit an engineering analysis within one week of receipt of test results.
- B. At a minimum, include the following items in the engineering analysis:
 - 1. Data supporting the Contractor's test results. Data must be based on project quality control testing performed by an AASHTO accredited lab that has performed a split-sample process with the Department and includes:
 - a. Split-sample testing performed within the applicable contract
 - b. Test data disputed along with:
 - Maximum Specific Gravity of Mix
 - Bulk Specific Gravity of Mix
 - Bulk Specific Gravity of Coarse Aggregates
 - c. Successful Paired-T test information, meeting $\alpha = 0.05$, for a minimum of two consecutive production days
 - 2. Procedures or issues leading to disputed acceptance test results.
 - 3. Determination of volumetric, durability and long-term structural properties from one or more of the following tests:
 - a. Hamburg Rut Tester
 - b. 5-Cycle Lottman
 - c. Asphalt Pavement Analyzer - Rut and Fatigue tests
 - d. Resilient Modulus
 - e. SHRP PG Asphalt Binder Tests
 - f. SHRP Gyratory Compactor
 - 4. Incentive/Disincentive calculations based on Contractor and Department test values.
 - 5. Recommendations for price adjustment based on expected long-term performance.
- C. When paving plans indicate that a reject lot will be covered within 48 hours, the Department immediately reviews the analysis to identify possible discrepancies that can be resolved through validation testing based on the following:
 - 1. Department performs repeat testing on remaining material from original Department test.
 - 2. Department personnel perform repeat testing in the presence of Contractor representative within a 24 hour time period.
 - 3. Use results to validate or invalidate original Department result. Validation test results may not be used in lieu of acceptance results.

4. Base validation on results within two standard deviations (project acceptance samples) of original acceptance result. Remove invalidated test results from acceptance lot and reevaluate lot based on reduced sample size.
 5. The Engineer reviews the results and notifies the Contractor of any findings that affect the reject status of the lot along with the Department's position on whether the lot is to be removed or may remain in place at the \$15.00/ton deduction for Reject Lot.
- D. Within three working days of receipt, the Resident Engineer, Region Materials Engineer, and Region Construction Engineer review the analysis and notify the Contractor in writing of acceptance or rejection. Notification of rejection includes the following:
1. Engineering basis for rejecting the Contractor's analysis, including specific points of objection.
 2. Department data and analysis to justify Department position.
 3. Time frame for removal of material or pay adjustment to be applied to the lot.
- E. When the Department concludes the engineering analysis has merit, the Department, in conjunction with the Contractor, immediately begins a review of the acceptance test results. The review includes, but is not be limited, to the following:
1. Independent Assurance review of all equipment and procedures and methods used for sampling, splitting, and testing.
 2. A review of the Department and Contractor's raw test data and calculations for documentation or calculation errors.
 3. Production and testing of additional correlation samples.
 4. Cross-witnessing of test procedures by Contractor Quality Control and Department personnel.
 5. Distribution any other pertinent information.
 6. Discussion of other possible means for variation.
- Note: If engineering analysis is initiated due to failure of statistical methods to verify Contractor testing and there is no net difference between incentive/disincentive based on Contractor or Department testing, the Engineer may verify contractor test values based on engineering analysis.*
- F. Do not continue production without concurrence from the Engineer or until differences in the test results are resolved.
- G. If errors in testing or reporting are discovered, the Department corrects the applicable test results and re-applies the acceptance/pay adjustment procedures.

1. If errors are identified that cannot be corrected and the quality of the lot is in question, the Department may choose to evaluate the lot using the Hamburg Wheel Tracker or the Asphalt Pavement Analyzer.
 - a. Use 5 stratified random samples cut from the roadway
 - b. The Region Materials Engineer and Resident Engineer decide, in conjunction with the Contractor, the status of the lot and associated pay adjustment, based on the following:
 - Fatigue Life
 - Stripping Potential
 - Rutting Potential
 - Expected Pavement Performance Period vs. Design Life
 2. Errors that are identified within the Department's testing result in a review of the Contractor's schedule and if appropriate, make adjustments to the CPM.
- H. If errors in testing cannot be identified, select an Independent Third Party (Agreed on by the Department and the Contractor) to witness sample splitting and testing by both the Contractor and the Department. The Independent Third Party identifies/produces additional material for split-sample testing.
- I. If testing errors are identified by the Third Party, the Department makes appropriate adjustments to the acceptance test results and re-applies the acceptance/pay adjustment procedures.
- J. The party responsible for the identified error pays for the services of the Independent Third Party.
- K. If no errors are identified, the Department evaluates the lot using the original testing results.

END OF SECTION

**SPECIAL PROVISION
STP-0108(7)3**

SECTION 02969 S

OPTIONAL USE OF RECLAIMED ASPHALT PAVEMENT

Replace sections 02968 and 02969 in their entirety with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Option to incorporate Reclaimed Asphalt Pavement (RAP) materials into hot mix asphalt pavement, dense-graded material only.

1.2 RELATED SECTIONS

- A. Section 02741: Hot Mix Asphalt (HMA).
- B. Section 02745: Asphalt Materials.
- C. Section 02746: Hydrated Lime.
- D. Section 02961: Rotomilling.
- E. Section 509 of the UDOT Minimum Sampling and Testing Guide: Asphalt Binder Quality Management Plan.
- F. Section 909: Part 8, UDOT Materials Manual: Hamburg Wheel Track Testing of Compacted Bituminous Mixtures.
- G. AASHTO T-164: Quantitative Extraction of Bitumen from Paving Mixtures..
- H. AASHTO T-170: Recovery of Asphalt from Solution by Abson Method.
- I. AASHTO M-320: Performance Graded Asphalt Binder.

1.3 SUBMITTALS

- A. Quality Control Plan.
 - 1. Submit the proportion of materials from each of the RAP stockpiles intended to be used in the project.
 - 2. Submit the sampling and testing plan for the project.
 - 3. Provide for testing, by a AMRL accredited laboratory, of the reclaimed material and the total mixture at no additional cost to the Department.
 - 4. Submit for Engineer approval.

PART 2 PRODUCTS

2.1 PG BINDER

- A. Select and supply a standard AASHTO M320 PG Binder meeting the requirements of Sections 02745 and 509, in accordance to Table 1.
- B. Perform Department Quality Assurance testing on the supplied grade of standard PG Binder in accordance to Section 509.

2.2 MIX DESIGN

- A. Obtain Engineer's approval for the use of RAP in the hot mix asphalt.
- B. Use up to 30 % RAP by total weight in the hot mix asphalt, in accordance to Table 1.
- C. Provide the following for each RAP Stockpile:
 - 1. Extracted Gradation
 - 2. Asphalt Content
 - 3. SSD Specific Gravity of Extracted RAP
- D. Provide the following for the RAP Material combined in proportions for the intended production of HMA:
 - 1. Performance Grade of recovered asphalt binder.

February 25, 2003

- a. Use AASHTO T-164, Method E, with reagent grade Trichloroethylene, and AASHTO T-170 to recover the asphalt binder.
 - b. Determine the performance grade of the recovered binder in accordance to AASHTO M-320 with the following modification:
 - (1) PAV aging is not required before testing for fatigue and low temperature cracking.
- E. Select the percentage of RAP by total weight in the hot mix asphalt and the standard, virgin asphalt binder grade meeting Section 02745, using Table 1:

Table 1
Binder Selection Guidelines and Total Allowable RAP for RAP Mixtures

Recovered RAP Asphalt Binder Grade	Desired RAP %	Recommended Virgin Asphalt Binder Grade
PGXX-22 or lower	< 20%	No Change in the Design Grade of the Asphalt Binder
	20 -30 %	Select Virgin Binder one grade softer than normal (e.g. select a PG58-40 if a PG64-34 is the design grade
PGXX-16	< 15 %	No Change in the Design Grade of the Asphalt Binder
	15 - 25 %	Select Virgin Binder one grade softer than normal (e.g. select a PG58-40 if a PG64-34 is the design grade
PGXX-10 or higher	< 10 %	No Change in the Design Grade of the Asphalt Binder
	10 - 15 %	Select Virgin Binder one grade softer than normal (e.g. select a PG58-40 if a PG64-34 is the design grade

- F. Meet all the requirements of Section 02741 and the following:
1. Average wheel impression not to exceed 10 mm in 20,000 passes when tested in accordance with Hamburg Wheel Track Testing of Compacted Bituminous Mixtures, UDOT Materials Manual of Instruction Section 990.

2. Provide to UDOT Central Laboratory sufficient mix to perform test. Allow ten days for results.
 3. Meet all the requirements of Aggregate Properties of Section 02741 for the virgin aggregate portion of combined virgin and RAP aggregate.
- G. Complete the mix design for the combined virgin and RAP materials following Superpave volumetric mix design procedures. Use an AMRL accredited laboratory for the design.
- H. Provide the following for the combined virgin and RAP materials:
1. Gradation
 2. Asphalt content
 3. RAP content

PART 3 EXECUTION

3.1 RECLAIMED MATERIAL

- A. Crush or screen the reclaimed material to be used for recycle to pass a 1-1/2 inch sieve.
1. Construct stockpile platforms in such a way to prevent intrusion of subgrade materials into RAP.
 2. Provide adequate drainage for the stockpile site.
 3. Use separate cold feed bins for each stockpile.
 4. Use screened reclaimed material free of organic materials, soil, or other foreign substances.

END OF SECTION

- NOTES: 1. VERIFY LOCATIONS OF ALL UTILITIES ONE WEEK PRIOR TO BEGINNING WATER LINE OR IRRIGATION LINE WORK.
2. POT HOLE ALL UTILITY CROSSINGS TO VERIFY DEPTHS ONE WEEK PRIOR TO BEGINNING WATER LINE OR IRRIGATION LINE WORK.
3. IMMEDIATELY NOTIFY THE ENGINEER IF DESIGN REVISIONS ARE NECESSARY.
4. COORDINATE WORK WITH THE UTILITY CONTACTS IN THE TABLE BELOW.
5. SEE THE RW SHEETS FOR STATIONS AND OFFSETS OF THE IRRIGATION EASEMENT.
6. VERIFY THE LOCATION OF THE STORM DRAIN TRUNKLINE BEFORE CONSTRUCTING THE CLEANOUT BOXES. CONSTRUCT THE BOXES OVER THE TRUNKLINE AND KEEP A MINIMUM 0.5% SLOPE ON ALL LATERALS.

STA. 145+20.00
BEGIN PROJECT
STP-0108(7)3

R.P. 2.75

JUNCTION BOX REQ'D.

148+50.00 LT 35.90

DIVERSION BOX TYPE A REQ'D.

149+11.16 LT 57.00

DIVERSION BOX STD DWG DB 2 REQ'D.

149+10.16 LT 63.76

CATCH BASIN REQ'D.

150+50.00 LT 43.30 #2

RECONSTRUCT MANHOLE REQ'D.

149+28.75 LT 17.88

149+28.78 LT 23.15

24 INCH PIPE CULVERT CLASS C REQ'D.
(IRRIGATION)

BEGIN 148+50.00 LT 35.90

149+11.16 LT 57.00

MATCH LINE

15 INCH PIPE CULVERT CLASS C REQ'D.
(IRRIGATION)

BEGIN 149+10.16 LT 58.75

149+10.16 LT 63.76

END 149+10.16 LT 67.91

12 INCH PIPE CULVERT CLASS C REQ'D.
(IRRIGATION)

BEGIN 149+10.16 LT 63.76

END 149+64.87 LT 63.76

18 INCH PIPE CULVERT CLASS C REQ'D.
(STORM DRAIN)

BEGIN 150+50.00 LT 43.30

END 150+50.00 RT 7.77

REMOVE PIPE CULVERT REQ'D.
(EXIST. 24 INCH IRRIGATION)

BEGIN 148+50.00 LT 35.90

MATCH LINE

5 FT CHAIN LINK FENCE, TYPE II REQ'D.

BEGIN 149+05.79 LT 56.37

149+07.91 LT 54.25

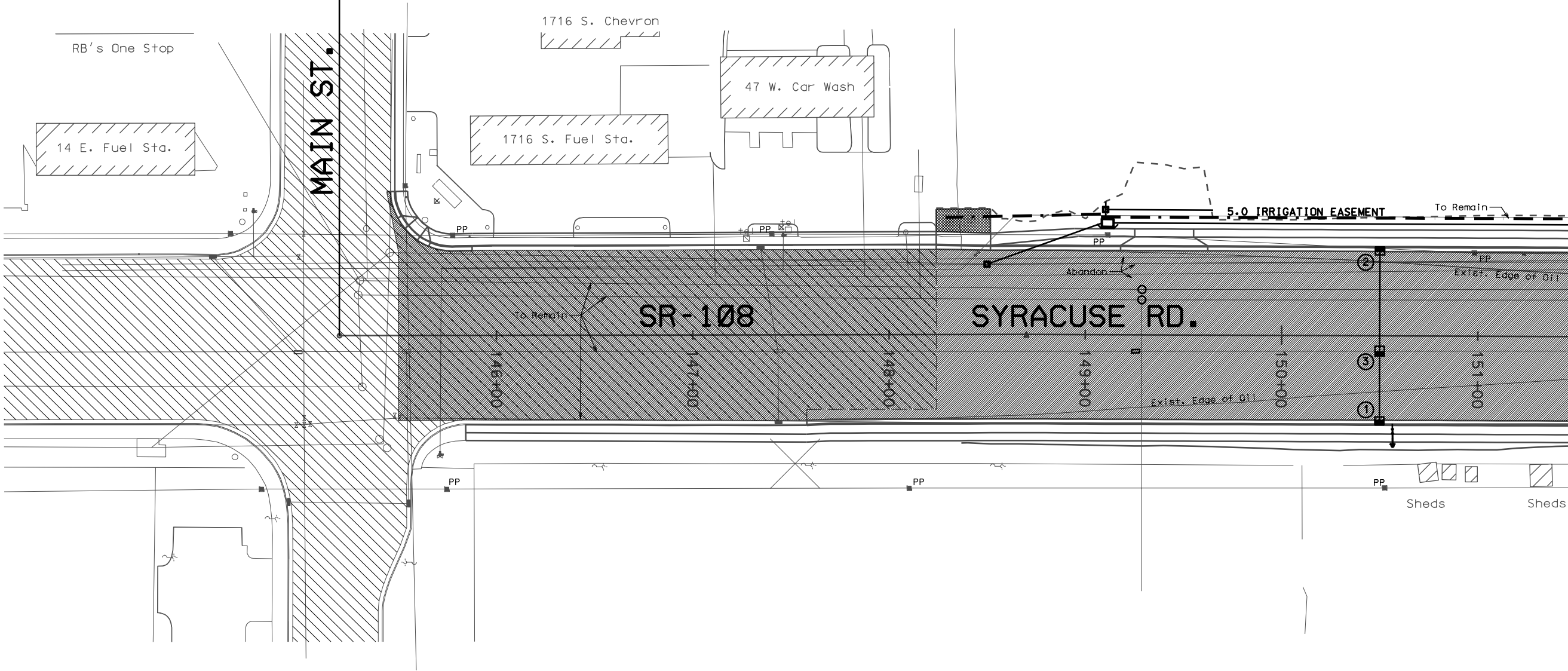
149+14.41 LT 54.25

END 149+16.53 LT 56.37

RECONSTRUCT VALVE BOX REQ'D.

148+44.83 LT 41.17

1" = 60'



UTILITY CONTACT LIST 1

COMPANY	REPRESENTATIVE	TELEPHONE NO.	E-MAIL ADDRESS
UTAH POWER	JERRY ISAACSON	(801) 540-2008	
	GARDELL GRUNDTVIG	(801) 629-4385	
QUESTAR GAS COMPANY	KYLE SECRETAN	(801) 324-3389	kyles@questar.com
QWEST	JEFF STAPLEY	(801) 974-8505	jxstaple@qwest.com
CLEARFIELD CITY	SCOTT HODGE	(801) 525-2700	shodge@clearfieldcity.org
NORTH DAVIS COUNTY SEWER DISTRICT	KEVIN COWAN	(801) 825-0712	
WEST BRANCH IRRIGATION CO.	LAVELL SACKETT	(801) 825-4302	yankee@inovion.com
COMCAST	SHERYL PEHRSON	(801) 255-2711	sheryl_pehrson@cable.comcast.com
	LYNDON LAUHINGOA	(801) 401-3048	lyndon_lauhingoa@cable.comcast.com
SYRACUSE CITY	MICHAEL MOYES	(801) 825-1477	mike@syracuseut.com

CLEANOUT BOX REQ'D.

150+50.00 RT 7.77 #3

CATCH BASIN REQ'D.

150+50.00 RT 43.30 #1

RECONSTRUCT CLEANOUT BOX REQ'D.

149+25.72 RT 8.32

18 INCH PIPE CULVERT CLASS C REQ'D.
(STORM DRAIN)

BEGIN 150+50.00 RT 43.30

END 150+50.00 RT 7.77

6 INCH DUCTILE IRON WATERLINE REQ'D.

BEGIN 150+56.65 RT 44.66

END 150+56.65 RT 56.00

6 INCH GATE VALVE REQ'D.

150+56.65 RT 48.00

FIRE HYDRANT REQ'D.

150+56.65 RT 56.00

UTILITY LEGEND

—	NEW STORM DRAIN
—	NEW IRRIGATION LINE
—	Exist. Sanitary Sewer
—	Exist. Water
—	Exist. Irrigation Line
—	Exist. Storm Drain
—	Exist. Gas
—	Exist. Buried Telephone
—	Exist. Fiber Optics
—	Exist. Overhead Power

UTAH DEPARTMENT OF TRANSPORTATION

REGION ONE - OGDEN, UTAH

ROADWAY DESIGN

SYRACUSE ROAD: MAIN STREET

TO 1000 W. CLEARFIELD

DRAINAGE & UTILITY PLANS

PROJECT NUMBER STP-0108(7)3

DAVIS COUNTY

SHEET NO. DU-1

REVIEW

DATE

BY

CHECK

DATE

BY

DESIGN

DATE

BY

DRAWN

DATE

BY

QUANT.

DATE

BY

PRECONSTRUCTION

DATE

BY

APPROVAL

DATE

BY

RECONSTRUCTION

DATE

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REVISIONS

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